

## **VI. NATURAL AND CULTURAL RESOURCE MANAGEMENT**

### **NATURAL RESOURCE MANAGEMENT POLICY**

The Division of Parks and Recreation's approach to natural resource management is directed by the North Carolina Constitution and the State Parks Act, both of which require the prudent management of natural resources. The constitution sets the overall policy by broadly defining the conservation and protection of natural resources and the acquisition of such resources as a proper function of government. The State Parks Act states that unique archaeological, geological, biological, scenic and recreational resources are a part of the heritage of the people that *"...should be preserved and managed by those people for their use and for the use of their visitors and descendants."*

The North Carolina State Parks System plays an important role in maintaining, rehabilitating and perpetuating the state's natural heritage. The natural resources of the state parks system are: high quality, rare or representative examples of natural communities; native plants and animals; geological features and landforms; water resources; and the natural processes that affect these resources. The primary objective in natural resource management will be the protection of natural resources for their inherent integrity and for appropriate types of enjoyment while ensuring their availability for future generations.

It is the Division's policy that natural resources will be managed by allowing natural environments to evolve through natural processes with minimal human influence. Natural resource management will not attempt solely to preserve individual species or processes; rather, it will attempt to maintain all the components and processes of a park's naturally evolving ecosystems. When intervention is necessary, direct or secondary effects on park resources will be minimized to the greatest extent possible. Intervention of natural processes may occur:

1. To correct or compensate for the previous human disruption of natural processes;
2. To protect, restore or enhance rare species and natural communities;
3. To protect, restore or enhance significant archaeological resources;
4. To construct, maintain, improve or protect park facilities; and,
5. To prevent danger to human health or safety around park facilities.

All park facilities will be designed, constructed and maintained to avoid adverse impacts to high quality natural communities, rare plant and animal species, major archaeological sites and other significant natural and cultural resources.

## NATURAL AND CULTURAL RESOURCE MANAGEMENT ISSUES

Category	Subcategory	Project Description	Priority <sup>1</sup>
Animal Management	Exotic Species Management	Study impacts of introduce Flathead catfish ( <i>Pylodictis olivaris</i> ).	Low
	Inventory Deficiencies	Continue inventory work on amphibians and reptiles.	Low
Botanical Resource Management	Exotic Species Management	Develop a management plan for Wisteria and Alligator Weed.	High
	Exotic Species Management	Continue to work with the Division of Water Quality to spray for Alligator Weed.	High
	Inventory Deficiencies	Natural community inventory is needed for the entire park.	Medium
		Rare species inventory is needed for several properties not purchased with Natural Heritage funding.	Medium
	Rare Species Management	Develop a protection plan for woody goldenrod ( <i>Chrysoma pauciflosculosa</i> ) and Carolina bogmint ( <i>Macbridea carolinianan</i> ).	Medium
		Monitor populations of new species identified in the rare species inventory.	Low
	Restoration/Reintroduction	Prepare a restoration plan for pine plantations on park property (approximately 800 acres).	Medium
Cultural Resource Management	Cultural Resource Management	Obtain cultural resource information about Princess Ann and the Net Hole areas.	Low
Infrastructure Management	Environmental Compliance for Planned Construction Projects	An environmental assessment will be required for the Chalk Banks development.	Low
	Road Management	Study the possibility of eliminating various roads (especially Big Sandy Ridge and Middle Swamp Road).	High
	Trails Management	Continue to monitor erosion on trails at Princess Ann.	Low
	Buffer Zone to State Park Property	Continue to monitor for hunting encroachment near park boundaries.	Medium
	Fire Management	Add additional properties to current prescribed fire plan.	High
	Park boundaries	Complete survey and boundary marking on all existing properties.	Medium
	Rights of Way	Review right-of-way at Big Sandy Ridge and the Net Hole properties.	Medium
	Trash and Debris Disposal	Mobile homes and hunting camps need to be removed at Pea Ridge and Big Sandy Ridge.	Medium
Water Resource Management	Riparian Buffer Zone Protection	Ensure enforcement and maintenance of all stream buffers associated with timber harvesting outside of the park.	Medium
		Purchase any buffer properties identified as natural heritage sites to maintain buffers.	Medium
		Study impacts of the canal on the Piney Island property.	Low
	River bank erosion	Monitor roads and trails to ensure stream bank integrity is maintained.	Medium
		Monitor Matthews Road (State Road 2123) to ensure flooding does not result in sedimentation impacts to the river.	Low
	Water Pollution	Develop a water quality testing program to determine baseline conditions and implement a long-term monitoring program to ensure high water quality within the park.	High
		Identify the 43 permitted discharges (on over 115 miles or river).	High
		Implement a study to determine the impacts of the dischargers on water quality. Study should include identification of pollutants emitted and impacts of thermal discharges.	Medium

1. Explanation of priority codes

### HIGH

If the resource management activity is not undertaken in the near future, there is a distinct possibility that natural resources will be compromised. These issues should be addressed within the next five years.

**MEDIUM** Although there is a possibility that resources could be compromised, the priority is not as critical as the high priority projects.

**LOW** Projects with low priority have significantly less chance for compromise of the natural resources if the project is not undertaken in a timely fashion or the project may depend on completion of other projects.

## **RESOURCE INVENTORY**

Nearly all documented species records for Lumber River State Park have been compiled and recorded in the Division of Parks and Recreation's online Natural Resource Inventory Database. A list of the rare species documented for the park follows.

### **Lumber River State Park Documented Rare Species**

#### **Mammal:**

*Corynorhinus rafinesquii macrotis*, Rafinesque's Big-eared Bat (Coastal Plain population), State Threatened and Federal Species of Concern

*Myotis austroriparius*, Southeastern Bat, State Special Concern and Federal Species of Concern

*Sciurus niger*, Eastern Fox Squirrel, State Significantly Rare

#### **Bird:**

*Ictinia mississippiensis*, Mississippi Kite, State Significantly Rare

#### **Reptile:**

*Alligator mississippiensis*, American Alligator, State Threatened and Federally Threatened

#### **Amphibian:**

*Eurycea quadridigitata spp.*, Dwarf Salamander (Silver morph), State Special Concern

#### **Fish:**

*Cyprinella zanema spp.*, Santee Chub (Coastal Plain population), State Special Concern

*Noturus spp.*, Broadtail Madtom, State Special Concern

*Semotilus lumbee*, Sandhills Chub, State Special Concern

#### **Mollusk:**

*Elliptio lanceolata*, Yellow Lance, State Threatened (proposed Endangered) and Federal Species of Concern

#### **Plant:**

*Kalmia cuneata*, White Wicky, State Endangered (wild populations)